



# THE ROCKEFELLER UNIVERSITY

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July 29, 1986

JOSHUA LEDERBERG

PRESIDENT

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Dear Barton:

I have your very interesting letter of July 14th.

"Resistance" has been a catch word among sociologists of science for some time. I enclose Bernard Barber's leading article which appeared some time ago: it gives you a check list of the considerations that sociologists have thought about.

You raise a more puzzling question: why should medical students have such rigid views? I suppose you have to begin with the inquiry: what exactly is their theory of human nature that would be in opposition to the balanced genetic-environmental determinism that you and I are so familiar with? Or is it that they are incapable of forming a general theoretical conception of any kind? I think something more like the latter; the balanced theory is just more complex than many people are educated to be able to handle. Partly for that reason, partly for others, there are of course strong ideological positions at both extremes of environmental or genetic fatalism; and it would be interesting to plumb your students to see which of them come from those perspective.

I'm going to share these thoughts with Bob Merton who has been both a sociologist of science and a particular student of medical education for many years.

Resistance to ideas plays an important role in the study of political crises: you might find it of interest to peruse Bob Jervis' book "Perception and Misperception in International Politics, and Ned Lebow's "Between Peace and War: Crises..." These political scientists have done pioneering work in showing how rigid mind sets have impaired rational behavior during historically critical situations.

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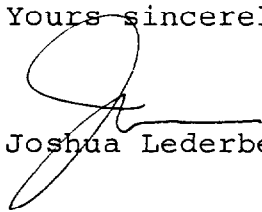
I'm afraid I just can't take Gunther Stent too seriously:  
in inverse proportion to his own dogmatism.

As to Kuhnian revolutions there are grave problems of definition. Somebody collected 20, at least, different ways in which the term "paradigm" has been used; and to Kuhn's own credit he has shifted his views substantially over the years. I do not believe that he would offer any single example in the history of biology that would constitute an authentic revolution (Kuhn 1962): if Darwin doesn't fit, what would? So I guess my own stance would be that of punctuated evolution: not always smooth and gradual but rarely so extreme a break as to fit Kuhn's original postulates.

Have you worked out how Roger Williams fits into the history of chemical individuality?

I suppose it is impossible to look at the evolution of the ideas of biochemical individuality with respect to human nature, without some attention to the political philosophy of the individual, and how this has fared through the 19th and 20th centuries.

Yours sincerely,



Joshua Lederberg

Encls.

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Barbu '61  
JL on IBC/revolutions